

## **REMARKS**

In this paper, claims 1, 5, 23-24 and 27-28 are amended. Claims 1, 4-5, and 18-29 are pending. Reconsideration of this application, as amended, is requested.

### **112 Rejections**

Claims 1, 4, 5 and 18-29 were rejected under 35 U.S.C. 112, second paragraph. The claims have been amended to better clarify the claims as requested. Withdrawal of this rejection is requested.

### **103 Rejections**

Claims 1, 4-5, 18-21, 23-27 and 27 were rejected under 35 U.S.C. 103(a) as unpatentable over U.S. Patent No. 5,708,247 to McAleer et al. in view of U.S. Patent No. 6,071,391 to Gotoh et al., as were claims 22, 26, 28 and 29. Applicants disagree with these rejections.

The claims have been amended to clarify that the methods include a step of creating a sample chamber region that comprises a plurality of connected sample chambers, and that when separated into a plurality of sensors, each sensor has at least one sample chamber having a volume of no more than about 1 microliter.

McAleer et al. has been described in previous papers, and those remarks also apply herein. The region of the sensor of McAleer et al. that is the sample chamber is defined by the exposed portion of the conductive layer 16 and the working coating 17 (see FIG. 1A, where this sample chamber is illustrated as a rectangular area). This sample chamber is formed by leaving a portion of conductive layer 16 exposed (i.e., not covered by insulating mask 18) and then applying working coating 17 over that area. As can be readily seen, this sample chamber area is bound on all sides by mask 18. If multiple sensors of McAleer et al. were aligned, the sample chambers (one from each sensor) would be individual, discrete areas, spaced from the side edges of the sensor.

The pending claims have been amended to clarify that when making the sensors, one sample chamber region contains a plurality of individual sample chambers that are connected. McAleer et al. cannot provide this teaching or suggestion, at least because the sample chamber

are spaced from the edges of the sensor. When multiple sensors are aligned, the sample chambers do not form a sample chamber region as recited in the pending claims.

The Office Action turns to Gotoh et al. for the teaching of a sample chamber volume of less than 1 microliter. Gotoh et al. discloses being able to perform a concentration measurement on a sample volume of 0.5 to 10 microliters; Gotoh et al. does not teach that the sample chamber volume is no more than 1 microliter. Gotoh et al. also does not disclose or suggest having a sample chamber volume of no more than about 0.5 microliter (claims 23 and 29) or no more than about 0.25 microliter (claims 27 and 28). It would not have been obvious to one skilled in the art to make such small volume sample chambers, based on a teaching that is up to, and more than, 10 times the volume of what is claimed.

The Office Action also turns to Gotoh et al. for the teaching that the sensor has two substrates having the same length and width. Applicants do not disagree that various embodiments of Gotoh et al. have the same length and width.

The Office Action also turns to Gotoh et al. for the teaching of indicator electrodes and points to "indicator electrodes (3 or 6) one [*sic*] of the substrates (see Col. 3, lines 62-65)." Applicants disagree that Gotoh et al. teaches indicator electrodes. In the embodiment of FIG. 1a, which is discussed at column 3, lines 38-67, reference numeral 3 is a reference electrode lead and reference numeral 6, is the reference electrode connected to lead 3 and present in the eventual sample chamber; this is not an indicator electrode. An indicator electrode is used to determine when the measurement zone or sample chamber has been filled; see for example, page 4, lines 7-9 of the pending application. There is no structure in Gotoh et al. that provides such a feature.

As for the newly clarified claims, Applicants contend that there is no teaching in McAleer et al. (which has been discussed above) and no suggestion in Gotoh et al. to make a plurality of sensors by methods that include a step of creating a sample chamber region that comprises a plurality of connected sample chambers, and then when separated into a plurality of sensors, each sensor has at least one sample chamber having a volume of no more than about 1 microliter. Applicants contend that the claims are patentable, as there is no teaching or suggestion in McAleer et al. combined with Gotoh et al. of methods of making sensors as claimed.

At least for these reasons, Applicants contend that none of McAleer et al., Gotoh et al., nor their combination, render unpatentable the pending claims, as amended. Withdrawal of these rejections is requested.


**Summary**

In view of the above amendments and remarks, Applicant respectfully requests a Notice of Allowance. If the Examiner believes a telephone conference would advance the prosecution of this application, the Examiner is invited to telephone the undersigned at the below-listed telephone number.

Respectfully submitted,

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